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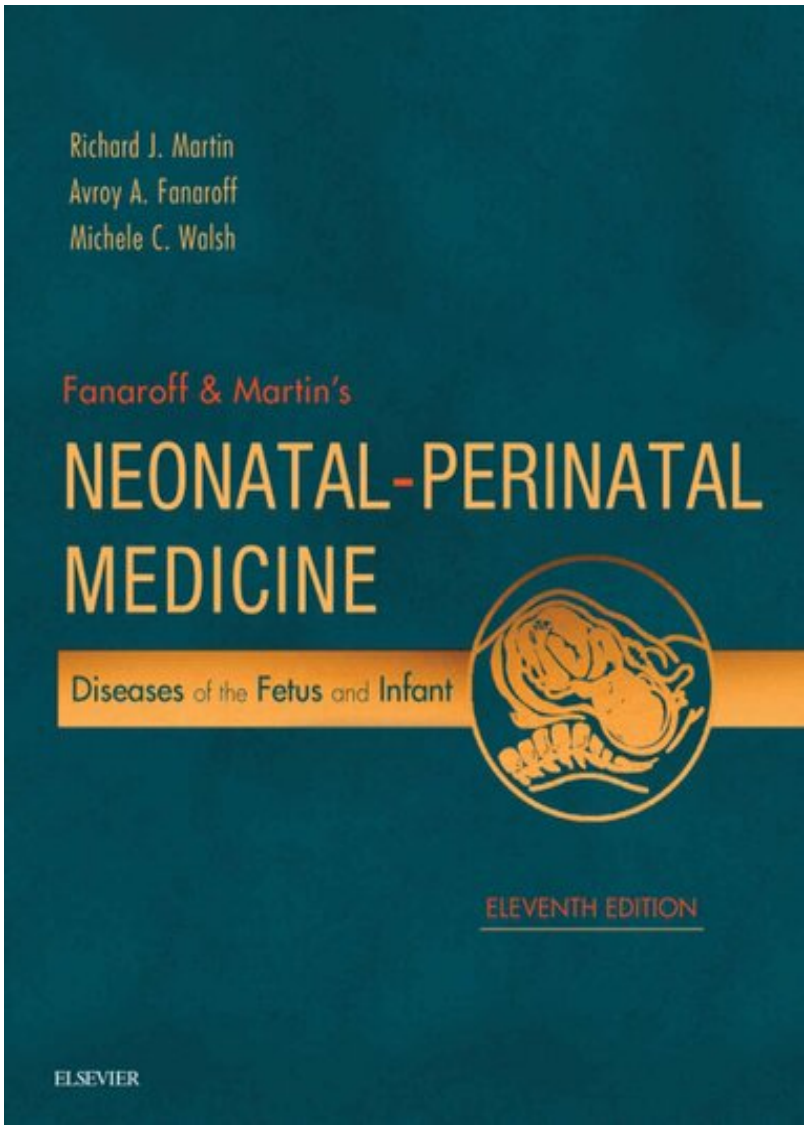

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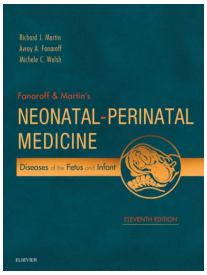

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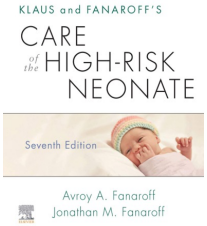

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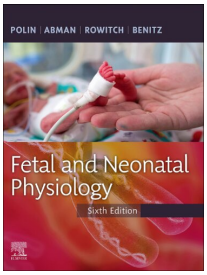

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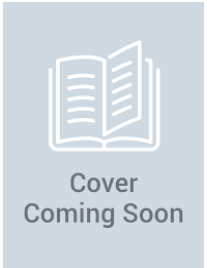

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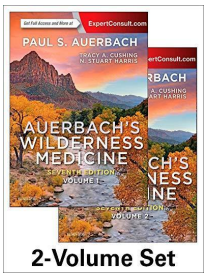

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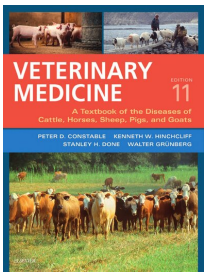

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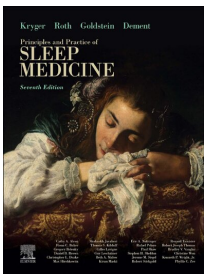

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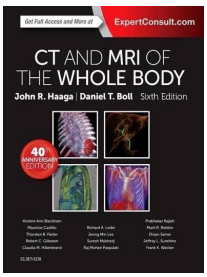

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Fanaroff & Martin's

NEONATAL-PERINATAL MEDICINE

Diseases of the Fetus and Infant

ELEVENTH EDITION

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Diseases of the Fetus and Infant

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FANAROFF AND MARTIN'S NEONATAL-PERINATAL MEDICINE, ELEVENTH EDITION
ISBN: 978-0-323-56711-4
Volume 1 part number: 9996122883
Volume 2 part number: 9996122948
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International Standard Book Number: 978-0-323-56711-4

Content Strategist: Sarah Barth
Senior Content Development Specialist: Dee Simpson
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Publishing Services Manager: Julie Eddy
Book Production Specialist: Carol O'Connell
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Last digit is the print number: 9 8 7 6 5 4 3 2 1

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To our spouses

Patricia Martin and Roslyn Fanaroff

to the Martin children and grandchildren

Scott, Molly, William, and Adelaide Martin;
Sonya Martin; and Peter, Mateo, and Soren Graif

to the Fanaroff children and grandchildren

Jonathan, Kristy, Mason, Cole, and Brooke Fanaroff;
Jodi, Peter, Austin, and Morgan Tucker;
and Amanda, Jason, Jackson, and Raya Hirsh

to the Walsh children

Sean and Tiffany Sukys
and Ryan Sukys

with love, admiration, and deep appreciation
for their continued support and inspiration

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Preface

Together with my colleague Avroy A. Fanaroff (and more recently, Michele C. Walsh), we have been privileged to transform the third edition (1983) of this text into its 11th edition over a span of 35 years. This has been a great honor and an enormous learning experience. Over this time, although neonatal survival rates may give reason to rejoice, the persistent respiratory and neurodevelopmental problems observed in former preterm infants remain cause for concern. Fortunately, we have made great strides in our ability to control nosocomial infections in preterm infants, and both target and achieve the intrauterine rate of growth through improved nutritional support. Meanwhile, the complex, ever-expanding genetic disorders and birth defects now loom as major problems in the neonatal intensive care unit and as leading causes of neonatal mortality.

The field of Neonatal-Perinatal Medicine has transitioned from anecdotal medicine to evidence-based medicine. The problem is that evidence-based medicine predicts outcomes for groups but not individuals. The next frontier, individualized or personalized medicine, requires application of the human genome project to the individual patient. That frontier may be rapidly approaching with the acquisition and application of new knowledge and technology. Over the last decades, translation of bench research to bedside innovation has proceeded remarkably as has understanding of the underlying mechanisms of many complex disorders. Advances in genetics have provided insight into the etiology of many disorders, and many previously mysterious diseases can now be attributed to single gene defects or mitochondrial disorders accompanied by cellular energy failure. We have attempted to address and incorporate these advances into the body of the text.

For this 11th edition, we have added several new sections and multiple new authors, notably expanding our international contributors, hence providing a truly global perspective. Many sections have been completely reorganized, and a large number of chapters have been rewritten or updated. We remain exceedingly grateful to our accomplished authors who have responded enthusiastically and maintained our need for a rapid timeline in this electronic era. As with prior editions, the 11th edition is available both in print and as an e-book on the Expert Consult platform, in a fully searchable and portable format.

This book would not exist without the remarkable clinical and intellectual environment that constitutes Rainbow Babies & Children's Hospital in Cleveland. On a daily basis, we gain knowledge from our faculty colleagues and fellows, and wisdom from our nursing staff who are so committed to their young patients. Once again, we have been blessed with an in-house editor, Bonnie Siner, to whom we cannot adequately express our thanks. She is the glue behind the binding in the book, and she has worked tirelessly with Elsevier staff members to bring this project to fruition. Elsevier has, once again, provided the resources to accomplish this mammoth task.

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	1905	86,545,464	159,753,968
Louisiana	1900	75,403,937	111,397,919
	1905	117,035,305	186,379,592
Maine	1900	61,210,327	112,959,098
	1905	80,042,090	144,020,197
Maryland	1900	129,354,412	211,076,143
	1905	150,024,066	243,375,996
Massachusetts	1900	498,655,033	907,626,439
	1905	626,410,431	1,124,092,051
Michigan	1900	175,966,128	319,691,856
	1905	230,080,931	429,120,060
Minnesota	1900	150,299,277	223,692,922
	1905	210,553,949	307,858,073
Mississippi	1900	16,543,029	33,718,517
	1905	25,800,885	57,451,445
Missouri	1900	184,189,030	316,304,095
	1905	252,258,417	439,548,957
Montana	1900	30,068,101	52,744,997
	1905	40,930,060	66,415,452
Nebraska	1900	95,925,178	130,302,453
	1905	124,051,628	154,918,220
Nevada	1900	662,284	1,261,005
	1905	1,627,776	3,096,274
New Hampshire	1900	60,163,380	107,590,803
	1905	73,216,387	123,610,904
New Jersey	1900	334,726,094	553,005,684
	1905	470,449,176	774,369,025
New Mexico	1900	1,998,593	4,060,924
	1905	2,235,934	5,705,880
New York	1900	1,018,377,186	1,871,830,872

	1905	1,348,603,286	2,488,345,579
North Carolina	1900	44,854,224	85,274,083
	1905	79,268,004	142,520,776
North Dakota	1900	4,150,860	6,259,840
	1905	7,095,986	10,217,914
Ohio	1900	409,302,501	748,670,855
	1905	527,636,585	960,811,857
Oklahoma	1900	3,732,618	5,504,869
	1905	11,545,306	16,549,656
Oregon	1900	20,788,833	36,592,714
	1905	30,596,763	55,525,123
Pennsylvania	1900	958,301,272	1,649,882,380
	1905	1,142,942,707	1,955,551,332
Rhode Island	1900	87,951,780	165,550,382
	1905	112,872,261	202,109,583
South Carolina	1900	30,485,861	53,335,811
	1905	49,968,626	79,376,262
South Dakota	1900	6,483,677	9,529,946
	1905	8,696,831	13,085,333
Tennessee	1900	54,559,039	92,749,129
	1905	79,351,746	137,960,476
Texas	1900	54,388,303	92,894,433
	1905	91,603,630	150,528,389
Utah	1900	11,440,250	17,981,648
	1905	24,939,827	38,926,464
Vermont	1900	26,384,812	51,515,228
	1905	32,429,852	63,083,611
Virginia	1900	59,359,484	108,644,150
	1905	83,649,149	148,856,525
Washington	1900	38,276,944	70,831,345
	1905	66,166,165	128,821,667

West Virginia	1900	37,228,253	67,006,822
	1905	54,419,206	99,040,676
Wisconsin	1900	185,695,393	326,752,878
	1905	227,255,092	411,139,681
Wyoming	1900	1,369,730	3,268,555
	1905	1,300,773	3,523,260

Chief Manufacturing Industries of the United States, Showing Sums Paid in Wages, Number of Employes, Capital Invested and Value of Product, 1880 to 1905.

[From reports of the Bureau of the Census, Department of Commerce and Labor.]

Industry.	Census year.	Number of establishments.	Capital.	Wage-earners.		Value of products, including custom work and repairing.
				Average number	Total wages.	
			Dollars.		Dollars.	Dollars.
Agricultural	1880	1,943	62,109,668	39,580	15,359,610	68,640,486
implements	1890	910	145,313,997	38,827	18,107,094	81,271,651
	1900	715	157,707,951	46,582	22,450,880	101,207,428
	1905	648	196,740,700	47,394	25,002,650	112,007,344
Boots and shoes	1880	1,959	42,994,028	111,152	43,001,438	166,050,354
	1890	2,082	95,282,311	133,690	60,667,145	220,649,358
	1900	1,599	99,819,233	141,830	58,440,883	258,969,580
	1905	1,316	122,526,093	149,924	69,059,680	320,107,458
Bread and other	1880	6,396	19,155,286	22,488	9,411,328	65,824,806
bakery products	1890	10,484	45,758,489	38,841	19,120,529	128,421,535
	1900	14,836	80,901,926	60,192	27,864,024	175,368,682
	1905	18,227	122,363,327	81,284	43,179,822	269,609,061
Carriages and	1880	3,841	37,973,493	45,394	18,988,615	64,951,617
wagons	1890	4,572	93,455,257	56,525	28,972,401	102,680,341
	1900	6,204	109,875,885	58,425	27,578,046	113,234,590
	1905	4,956	126,320,604	60,722	30,878,229	125,332,976
Cars, shop construction	1890	716	76,192,477	106,632	60,213,433	129,461,698
and repairs by	1900	1,293	119,580,273	173,652	96,062,329	218,238,277
steam railroad companies	1905	1,141	146,943,729	236,900	142,188,336	309,863,499
Cars, shop construction	1890	78	2,351,162	2,009	1,411,205	2,966,347
and repairs by steam	1900	108	10,781,939	7,025	4,404,593	9,370,811
street railway companies	1905	86	12,905,853	11,052	7,012,798	13,437,121
Cars, steam and	1880	130	9,272,680	14,232	6,507,753	27,997,591
street railroad, not	1890	88	46,109,625	33,139	17,168,099	73,385,852
including operations	1900	85	95,939,249	37,038	18,938,170	97,815,648
of railway companies	1905	87	101,154,750	38,788	23,087,400	122,019,506
Cheese, butter and	1880	3,932	9,604,803	7,903	1,548,495	25,742,510
condensed milk	1890	4,552	16,016,573	12,219	4,248,854	60,635,705
	1900	9,242	36,303,164	12,799	6,145,561	130,783,349
	1905	8,926	47,255,556	15,557	8,412,937	168,182,789
Chemicals	1880	595	28,983,458	9,724	4,222,663	38,640,458
	1890	563	55,032,452	15,038	7,308,411	59,352,548

	1900	433	89,069,450	19,020	9,393,236	62,637,008
	1905	448	119,890,193	24,525	13,361,972	92,088,378
Clothing, men's	1880	6,166	79,861,696	160,813	45,940,353	209,548,460
	1890	4,867	128,253,547	144,926	51,075,837	251,019,609
	1900	5,729	120,547,851	120,927	45,496,728	276,717,357
	1905	4,504	153,177,500	137,190	57,225,506	355,796,571
Clothing, women's	1880	562	8,207,273	25,192	6,661,005	32,004,794
	1890	1,224	21,259,528	39,149	15,428,272	68,164,019
	1900	2,701	48,431,544	83,739	32,586,101	159,339,539
	1905	3,351	73,947,823	115,705	51,180,193	247,661,560
Confectionery	1880	1,450	8,486,874	9,801	3,242,852	25,637,033
	1890	2,921	23,326,799	21,724	7,783,007	55,997,101
	1900	962	26,319,195	26,866	8,020,453	60,643,946
	1905	1,348	43,125,408	36,239	11,699,257	87,087,253
Cooperage	1880	3,898	12,178,726	25,973	8,992,603	33,714,770
	1890	2,652	17,806,554	22,555	10,056,249	38,617,956
	1900	1,694	21,777,636	22,117	8,786,428	38,439,745
	1905	1,517	29,532,614	21,149	9,485,455	49,424,394
Cordage and twine	1880	165	7,140,475	5,435	1,558,676	12,492,171
	1890	150	23,351,883	12,385	3,976,232	38,812,559
	1900	105	29,275,470	13,114	4,113,112	37,849,651
	1905	102	37,110,521	14,614	5,338,178	48,017,139
Cotton goods	1880	1,005	219,504,794	185,472	45,614,419	210,950,383
	1890	905	354,020,843	218,876	66,024,538	267,981,724
	1900	1,055	467,240,157	302,861	86,689,752	339,200,820
	1905	1,154	613,110,655	315,874	96,205,796	450,467,704
Electrical	1880	76	1,509,758	1,271	683,164	2,655,036
machinery,	1890	189	18,997,337	8,802	4,517,050	19,114,714
apparatus	1900	581	83,659,924	42,013	20,579,194	92,434,435
and supplies	1905	784	174,066,026	60,466	31,841,521	140,809,369
Flour and gristmill	1880	24,338	177,361,878	58,407	17,422,316	505,185,712
products	1890	18,470	208,473,500	47,403	18,138,402	513,971,474
	1900	9,476	189,281,330	32,226	16,285,163	501,896,304
	1905	10,051	265,117,434	39,110	19,822,196	713,033,395
Foundry and	1880	4,984	155,021,734	145,650	66,093,920	215,442,011
machine shop	1890	6,500	383,257,473	231,331	129,282,263	413,197,118
products	1900	9,316	663,414,323	350,103	182,096,007	644,456,216
	1905	9,428	936,416,978	402,914	229,869,297	799,862,588
Furnishing goods,	1880	161	3,724,664	11,174	2,644,155	11,506,357

men's	1890	586	12,299,011	20,773	6,078,036	29,870,946
	1900	457	20,575,961	30,322	9,730,066	44,346,482
	1905	547	28,043,584	27,185	8,760,108	49,031,582
Furniture	1880	5,227	44,946,128	59,304	23,695,080	77,845,725
	1890	1,919	80,780,939	72,869	35,068,979	111,743,080
	1900	1,814	104,484,394	87,262	35,632,523	125,315,986
	1905	2,482	152,712,732	110,133	49,883,235	170,446,825
Glass	1880	169	18,804,599	24,177	9,144,100	21,154,571
	1890	294	40,966,850	44,892	20,885,961	41,051,004
	1900	355	61,423,903	52,818	27,084,710	56,539,712
	1905	399	89,389,151	63,969	37,288,148	79,607,998
Hardware	1880	492	15,363,551	16,801	6,846,913	22,653,693
	1890	350	26,271,840	18,495	8,656,067	26,726,463
	1900	381	39,311,745	26,463	11,422,758	35,846,656
	1905	445	52,884,078	31,713	14,580,589	45,770,171
Jewelry	1880	739	11,431,164	12,697	6,441,688	22,201,621
	1890	783	22,246,508	13,880	8,038,327	34,761,458
	1900	851	27,871,924	20,468	10,643,887	46,128,659
	1905	1,023	39,678,956	22,080	12,592,846	53,225,681
Leather, tanned,	1880	5,628	73,383,911	40,282	16,503,828	200,264,944
curried,	1890	1,787	98,088,698	42,392	21,249,989	172,136,092
and finished	1900	1,306	173,977,421	52,109	22,591,091	204,038,127
	1905	1,049	242,584,254	57,239	27,049,152	252,620,986
Liquors, malt	1880	2,191	91,208,224	26,220	12,198,053	101,058,385
	1890	1,248	232,471,290	30,257	20,713,383	182,731,622
	1900	1,507	413,767,233	39,459	25,776,468	236,914,914
	1905	1,531	515,636,792	48,139	34,542,897	298,358,732
Lumber and	1880	25,758	181,465,392	148,290	31,893,098	233,608,886
timber products	1890	22,617	557,881,054	311,964	87,934,284	437,957,382
	1900	23,053	400,857,337	413,335	148,007,845	555,197,271
	1905	19,127	517,224,128	404,626	183,021,519	580,022,690
Lumber, planing-	1880	2,491	38,070,593	37,187	14,431,654	73,424,681
mill products,	1890	3,670	120,271,440	79,923	42,221,856	183,681,552
including sash, doors,	1900	4,198	118,948,556	73,510	32,621,704	167,786,122
and blinds	1905	5,009	177,145,734	97,674	50,713,607	247,441,956
Marble and	1880	2,846	16,498,221	21,471	10,238,885	31,415,150
stone work	1890	1,321	24,041,961	21,950	15,314,598	41,924,264
	1900	1,655	39,559,146	30,641	16,328,174	42,230,457
	1905	1,642	66,526,724	40,905	25,032,725	63,059,842

Paper and wood pulp	1880	742	48,139,652	25,631	8,970,133	57,366,860
	1890	649	89,829,548	31,050	13,204,828	78,937,184
	1900	763	167,507,713	49,646	20,746,426	127,326,162
	1905	761	277,444,471	65,964	32,019,212	188,715,189
Petroleum, refining	1890	94	77,416,296	11,403	5,872,467	85,001,198
	1900	67	95,327,892	12,199	6,717,087	123,929,384
	1905	98	136,280,541	16,770	9,989,367	175,005,320
Silk and silk goods	1880	382	19,125,300	31,337	9,146,705	41,033,045
	1890	472	51,007,537	49,382	17,762,441	87,298,454
	1900	483	81,082,201	65,416	20,982,194	107,256,258
	1905	624	109,556,621	79,601	26,767,943	133,288,072
Slaughtering and meat packing, wholesale	1880	872	49,419,213	27,297	10,508,530	303,562,413
	1890	611	98,190,766	37,502	20,304,029	433,252,315
	1900	557	173,866,377	64,681	31,033,850	697,056,065
	1905	559	219,818,627	69,593	37,090,399	801,757,137
Slaughtering, wholesale, not including meat packing	1890	507	18,696,738	6,473	4,000,947	128,359,353
	1900	325	14,933,804	3,705	2,358,403	86,723,126
	1905	370	17,896,063	4,541	3,236,573	112,157,487
Smelting and refining, copper	1900	47	53,063,395	11,324	8,529,021	165,131,670
	1905	40	76,824,640	12,752	10,827,043	240,780,216
Smelting and refining, lead	1900	39	72,148,933	8,319	5,088,684	175,466,304
	1905	32	63,822,810	7,573	5,374,691	185,826,839
Structural ironwork	1880	220	1,400,197	1,934	844,614	3,410,086
	1890	724	21,968,172	17,158	10,235,701	37,745,294
	1900	697	43,442,877	24,903	13,588,779	66,927,305
	1905	775	76,598,507	34,276	19,760,210	90,944,697
Sugar and molasses, refining	1880	49	27,432,500	5,857	2,875,032	155,484,915
	1890	393	24,013,008	7,043	2,385,654	123,118,259
	1900	657	184,033,304	14,129	6,917,829	239,711,011
	1905	344	165,468,320	13,549	7,575,650	277,285,449
Tinware, copper-smithing, and sheet iron working	1880	7,693	23,167,392	27,116	11,243,276	50,183,811
	1890	7,002	38,434,900	31,377	15,610,265	66,653,746
	1900	1,846	35,724,739	28,315	13,193,307	63,812,787
	1905	2,366	124,500,133	39,475	20,608,179	97,974,838
Tobacco, chewing and smoking, and snuff	1880	477	17,207,401	32,756	6,419,024	52,793,056
	1890	395	30,841,316	29,790	6,947,158	65,843,587
	1900	437	43,856,570	29,161	7,109,821	103,754,362
	1905	433	178,847,556	23,990	6,775,325	116,767,630
Tobacco, cigars	1880	7,145	21,698,549	63,297	18,464,562	63,979,575

and cigarettes	1890	10,956	59,517,827	87,000	36,475,060	129,693,275
	1900	14,522	67,660,748	103,365	40,865,510	159,958,811
	1905	16,395	145,135,945	135,418	55,864,978	214,350,051
Woolen goods	1880	1,990	96,095,564	86,504	25,836,392	160,606,721
	1890	1,811	130,989,940	76,915	26,139,194	133,577,977
	1900	1,035	124,386,262	68,893	24,757,006	118,430,158
	1905	792	140,302,488	72,747	28,827,556	142,196,658
Worsted goods	1880	76	20,374,043	18,803	5,683,027	33,549,942
	1890	143	68,085,116	42,978	14,944,966	79,194,652
	1900	186	132,168,110	57,008	20,092,738	120,314,344
	1905	226	162,464,929	69,251	26,269,787	165,745,052

The Textile Industries of the United States at Decennial Periods, 1850 to 1900.

[Compiled from Census Reports.]

	Year.	Number of establish-ments.	Capital.	Number of wage-earners.	Wages.	Cost of materials.	Value of products.
Wool	1850	1,760	$ 32,516,366	47,763	...	$29,246,696	$ 49,636,881
manufacture[Z]	1860	1,673	42,849,932	59,522	$13,361,602	46,649,365	80,734,606
	1870	3,456	132,382,319	119,859	40,357,235	134,154,615	217,668,826
	1880	2,689	159,091,869	161,557	47,389,087	164,371,551	267,252,913
	1890	2,489	296,494,481	213,859	70,917,894	203,095,572	337,768,524
	1900	2,335	392,040,353	242,495	82,292,444	232,230,986	392,473,050
	1905	2,292	477,525,222	283,691	102,333,548	319,154,878	517,492,142
Cotton	1850	1,094	74,500,931	92,286	...	34,835,056	61,869,184
manufacture[AA]	1860	1,091	98,585,269	122,028	23,940,108	57,285,534	115,681,774
	1870	956	140,706,291	135,369	39,044,132	111,736,936	177,489,789
	1880	756	208,280,346	174,659	42,040,510	102,206,347	192,090,110
	1890	905	354,020,842	218,876	66,024,538	154,912,979	267,981,724
	1900	1,055	467,240,157	802,861	86,689,752	176,551,527	339,200,320
	1905	1,154	613,110,655	315,874	96,205,796	286,255,303	450,467,704
Silk manufacture	1850	67	678,300	1,743	...	1,093,866	1,809,476
	1860	139	2,926,980	5,435	1,050,224	3,901,777	6,607,771
	1870	86	6,231,130	6,649	1,942,286	7,817,559	12,210,662
	1880	382	19,125,300	31,337	9,146,705	22,467,701	41,033,045
	1890	472	51,007,537	49,382	17,762,441	51,004,425	87,298,454
	1900	483	81,082,201	65,416	20,982,194	62,406,665	107,256,258
	1905	624	109,556,621	79,601	26,767,943	75,861,188	188,288,072
Dyeing and	1850	104	4,818,350	5,105	...	11,540,347	15,454,430
finishing textiles	1860	124	5,718,671	7,097	2,001,528	5,005,435	11,716,463
	1870	292	18,374,503	13,066	5,221,538	99,539,992	113,017,537
	1880	191	26,223,981	16,698	6,474,364	13,664,295	32,297,420
	1890	248	38,450,800	19,601	8,911,720	12,385,220	28,900,460
	1900	298	60,643,104	29,776	12,726,316	17,958,137	44,963,331
	1905	360	88,708,576	35,563	15,469,205	19,621,253	50,849,545
Flax, hemp and jute	1890	162	27,731,649	15,519	4,872,389	26,148,344	37,313,021
	1900	141	41,991,762	20,903	6,331,741	32,197,885	47,601,607
	1905	133	54,423,531	24,508	8,580,785	44,890,546	62,939,329

Combined textiles	1850	3,025	112,513,947	146,877	…	76,715,959	128,769,971
	1860	3,027	150,080,852	194,082	40,353,462	112,842,111	214,740,614
	1870	4,790	297,694,243	274,943	86,565,191	353,249,102	520,386,764
	1880	4,018	412,721,496	384,251	105,050,666	302,709,894	532,673,488
	1890	4,276	767,705,310	517,237	168,488,982	447,546,540	759,262,283
	1900	4,312	1,042,997,577	661,451	209,022,447	521,345,200	931,494,566
	1905	4,563	1,343,324,605	739,239	249,357,277	745,783,168	1,215,036,792

[Z] ~~Includes hosiery and knit goods.~~

[AA] Includes cotton small wares.

Cotton Manufactures in the United States, 1870 to 1905.

[From official reports of the United States Census Office.]

	1870.	1880.	1890.	1900.	1905.
Number of establishments	956	756	905	973	1,077
Capital	$140,706,291	$208,280,346	$354,020,843	$460,842,772	$605,100,164
Wage-earners, average number	135,369	174,659	218,876	297,929	310,458
Total wages	$39,044,132	$42,040,510	$66,024,538	$85,126,310	$94,377,696
Cost of materials used	$111,736,936	$102,206,347	$154,912,979	$178,441,390	$282,047,648
Value of products	$177,489,739	$192,090,110	$267,981,724	$332,806,156	$442,451,218
Active spindles, number	7,132,415	10,653,435	14,188,103	19,008,352	23,155,613
Looms, number	157,310	225,759	324,866	450,682	640,910
Cotton consumed, bales	…	1,570,344	2,261,600	3,639,495	3,743,089
Cotton consumed, pounds	398,308,257	759,343,981	1,117,945,776	1,814,002,512	1,873,074,716

Silk Manufactures in the United States, 1870 to 1905.

[From official reports of the United States Census Office.]

	1870.	1880.	1890.	1900.	1905.
Number of establishments	86	382	472	483	624
Capital	$6,231,180	$19,125,300	$51,007,537	$81,082,201	$109,556,621
Wage-earners, average number	6,649	31,337	49,382	65,416	79,601
Total wages	$1,942,286	$9,146,705	$17,762,441	$20,982,194	$26,767,943
Cost of materials used	$7,817,559	$22,467,701	$51,004,425	$62,406,665	$75,861,188
Value of products	$12,210,662	$41,033,045	$87,298,454	$107,256,258	$133,288,072
Raw silk used, pounds	684,488	2,690,482	6,376,881	9,760,770	11,572,783

Cotton Production and Manufacturing in the United States, also Imports and Exports of Cotton Manufactures.

[From the Statistical Abstract of the United States.]

	Total commercial crop.	Taken for home consumption.			Raw cotton imported.	Exports of manufactures of cotton.	Imports of manufactures of cotton.
		By Northern mills.	By South-ern mills.	Total.			
	In thousands of bales.				Pounds.	Dollars.	Dollars.
1884	5,713	1,537	340	1,877	7,019,492	11,885,211	29,074,626
1885	5,706	1,437	316	1,753	5,115,680	11,836,591	27,197,241
1886	6,575	1,781	381	2,162	5,072,334	13,959,934	29,709,266
1887	6,499	1,687	401	2,088	3,924,531	14,929,342	28,940,353
1888	7,047	1,805	456	2,261	5,497,592	13,013,189	28,917,799
1889	6,939	1,790	480	2,270	7,973,039	10,212,644	26,805,942
1890	7,297	1,780	545	2,325	8,606,049	9,999,277	29,918,055
1891	8,674	2,027	613	2,640	20,908,817	13,604,857	29,712,624
1892	9,018	2,172	684	2,856	28,663,769	13,226,277	28,323,841
1893	6,664	1,652	723	2,375	43,367,952	11,809,355	33,560,293
1894	7,532	1,580	711	2,291	27,705,949	14,340,886	22,346,547
1895	9,837	2,019	852	2,871	49,332,022	13,789,810	33,196,625
1896	7,147	1,605	900	2,605	55,350,520	16,837,396	32,437,504
1897	8,706	1,793	999	2,792	51,898,926	21,037,678	34,429,363
1898	11,216	2,211	1,254	3,465	52,660,363	17,024,092	27,267,300
1899	11,256	2,217	1,415	3,632	50,158,158	23,566,914	32,054,434
1900	9,422	2,047	1,597	3,644	67,398,521	24,003,087	41,296,239
1901	10,839	1,964	1,583	3,647	46,631,283	20,272,418	40,246,935
1902	10,768	2,066	2,017	4,083	98,715,680	32,108,362	44,460,126
1903	10,674	1,966	1,958	3,924	74,874,426	32,216,304	52,462,755
1904	10,002	2,046	1,889	3,935	48,840,590	22,403,718	49,524,246
1905	13,654	2,292	2,270	4,562	60,508,548	49,668,080	48,919,986
1906	11,234	2,335	2,292	4,627	70,963,633	52,944,038	63,043,322
1907	13,540	2,510	2,495	5,005	104,791,784	32,305,412	73,704,636

Iron and Steel Manufacturing in the U. S.: Comparative Summary, 1870 to 1905, with per cent of increase for each decade.[BB]

[From the United States Census.]

	Date of census.				
	1870.[CC]	1880.[CC]	1890.	1900.	1905.
Number of establishments	808	792	719	669	606
Capital	$121,722,704	$209,904,965	[DD]$414,044,844	$590,530,484	$948,689,840
Salaried officials, clerks, etc., number	[EE]	[EE]	4,325	9,217	16,566
Salaries	[EE]	[EE]	$6,462,236	$11,741,788	$20,758,412
Wage-earners, average number	77,555	140,798	171,181	222,607	242,740
Total wages	$40,514,981	$55,451,510	$89,273,956	$120,836,338	$141,439,906
Men, 16 years and over	75,037	133,023	168,943	219,635	239,383
Wages	[EE]	[EE]	$88,840,642	$120,157,007	$140,545,610
Women, 16 years and over	82	45	58	1,071	1,455
Wages	[EE]	[EE]	$17,106	$266,888	$441,967
Children, under 16 years	2,436	7,730	2,180	1,901	1,902
Wages	[EE]	[EE]	$416,208	$412,443	$452,329
Miscellaneous expenses	[FF]	[FF]	$18,214,948	$32,274,100	$47,164,970
Cost of materials used	$135,526,132	$191,271,150	$327,272,845	$522,431,701	$620,171,881
Value of products	$207,208,696	$296,557,685	$478,687,519	$804,034,918	$905,854,152
Tons of products (2,240 pounds each)	3,263,585	6,486,733	16,264,478	29,507,860	34,844,933

	Per cent of increase.			
	1870 to 1880.	1880 to 1890.	1890 to 1900.	1900 to 1905.

Number of establishments	[DD] 2.0	[DD] 9.2	[DD] 7.0	9.4
Capital	72.4	97.3	42.6	60.7
Salaried officials, clerks, etc., number	...	...	113.1	79.7
Salaries	...	...	81.7	76.8
Wage-earners, average number	81.5	21.6	30.0	9.0
Total wages	36.9	61.0	35.4	17.1
Men, 16 years and over	77.3	27.0	30.0	9.0
Wages	...	...	35.3	17.0
Women, 16 years and over	[DD] 45.1	28.9	1,746.6	35.9
Wages	...	...	1,460.2	65.6
Children, under 16 years	217.3	[DD] 71.8	[DD] 12.8	0.1
Wages	...	...	[DD] 0.9	9.7
Miscellaneous expenses	...	...	77.2	46.1
Cost of materials used	41.1	71.1	59.6	18.7
Value of products	43.1	61.4	68.0	12.7
Tons of products (2,240 pounds each)	98.8	150.7	81.4	18.1

[BB] This summary includes only active establishments for 1880, 1890, and 1900; such establishments were not reported separately in 1870. The 669 establishments in 1900 and the 606 establishments in 1905 include in each case 1 penal institution, the figures for which are not included in Parts I and II of the Report on Manufactures.

[CC] For explanation of the apparent discrepancies in the data for 1870 and 1880, see remarks, page 2, Part I, Manufacturing Industries, 1890, in regard to the depreciated currency in 1870; and in regard to the inclusion of capital, employes, and wages relating to mining and other operations in the figures for 1880, see page 745, Statistics of Manufactures, 1880.

[DD] Decrease.

[EE] Not reported separately.

[FF] Not reported.

Production of Pig Iron and of Crude Steel in the United States, 1880 to 1907, and relation of same to Imports and Exports of Iron and Steel Manufactures; also Prices of Representative Iron and Steel Products during the period named.

[From official reports of Bureau of Statistics.]

Year.	Pig iron produced in United States.	Crude steel produced in United States.	Per cent of domestic iron used in home industries (fiscal year).	Price per ton of pig iron, No. 1 foundry. [GG]	Price of steel rails per ton.	Wire nails, price per keg of 100 lbs.	Imports of manufactures of iron and steel.	Exports of domestic manufactures of iron and steel.
	Tons.	Tons.						
1880	3,835,191	1,247,335	78.44	$28.48	$67.52	...	$71,266,699	$14,716,524
1881	4,144,254	1,588,314	90.23	25.17	61.08	...	60,604,477	16,604,767
1882	4,623,323	1,736,692	89.36	25.77	48.50	...	67,976,897	20,748,206
1883	4,595,510	1,673,535	91.44	22.42	37.75	...	58,495,246	22,826,528
1884	4,097,868	1,550,879	94.20	19.81	30.75	...	40,147,053	21,909,881
1885	4,044,526	1,711,920	96.43	17.99	28.52	...	33,610,093	16,592,155
1886	5,683,329	2,562,503	93.92	18.71	34.52	$3.51	37,534,078	15,745,569
1887	6,417,148	3,339,071	93.13	20.93	37.08	3.15	49,203,164	15,958,502
1888	6,489,738	2,899,440	95.17	18.88	29.83	2.55	48,992,757	17,763,034
1889	7,603,642	3,385,732	97.35	17.76	29.25	2.49	42,377,793	21,156,077
1890	9,202,703	4,277,071	98.10	18.41	31.78	2.51	41,679,591	25,542,208
1891	8,279,870	3,904,240	99.12	17.52	29.92	2.04	53,544,372	28,909,614
1892	9,157,000	4,927,581	99.01	15.75	30.00	1.70	28,928,103	28,800,930
1893[HH]	7,124,502	4,019,995	99.39	14.52	28.12	1.49	34,937,974	30,106,482
1894[HH]	6,657,388	4,412,032	99.64	12.66	24.00	1.11	20,925,769	29,220,264
1895[HH]	9,446,308	6,114,834	99.79	13.10	24.33	1.69	23,048,515	32,000,989
1896[HH]	8,623,127	5,281,689	99.07	12.95	28.00	2.54	25,338,103	41,160,877
1897	9,652,680	7,156,957	99.77	12.10	18.75	1.46	16,094,557	57,497,872
1898	11,773,934	8,932,857	99.79	11.66	17.62	1.45	12,626,431	70,406,885
1899	13,620,703	10,639,857	99.80	19.36	28.12	2.60	12,100,440	93,716,031
1900	13,789,242	10,188,329	98.55	19.98	32.29	2.76	20,478,728	121,913,548
1901	15,878,354	13,473,595	99.71	15.87	27.33	2.41	17,874,789	117,319,320
1902	17,821,307	14,947,250	99.01	22.19	28.00	2.15	27,180,247	98,552,562

1903	18,009,252	14,534,978	94.92	19.92	28.00	2.13	51,617,312	96,642,467
1904	16,497,033	13,859,887	98.95	15.57	28.00	1.96	27,028,312	111,948,586
1905	22,992,380	20,023,947	99.27	17.88	28.00	1.93	23,510,164	134,728,363
1906	25,307,191	23,398,136	98.94	20.98	28.00	1.98	29,053,987	160,984,985
1907	25,781,361	[II]23,360,000	97.83	23.89	28.00	2.18	40,587,865	181,530,871

[GG] Not made in commercial quantities in the United States before 1887.

[HH] Democratic and low-tariff years.

[II] Preliminary figures.

Annual Production of Bessemer Steel Rails in the United States from 1867 to 1907, and their Average Annual Price at the Works in Pennsylvania.

Years.	Gross tons.	Price.
1867	2,277	$166.00
1868	6,451	158.46
1869	8,616	132.19
1870	30,357	106.79
1871	34,152	102.52
1872	83,991	111.94
1873	115,192	120.58
1874	129,414	94.28
1875	259,699	68.75
1876	368,269	59.25
1877	385,865	45.58
1878	491,427	42.21
1879	610,682	48.21
1880	852,196	67.52
1881	1,187,770	61.08
1882	1,284,067	48.50
1883	1,148,709	87.75
1884	996,983	30.75
1885	959,471	28.52
1886	1,574,703	34.52
1887	2,101,904	37.08
1888	1,386,277	29.83
1889	1,510,057	29.25
1890	1,867,837	31.78
1891	1,293,053	29.92
1892	1,537,588	30.00
1893	1,129,400	28.12
1894	1,016,013	24.00
1895	1,299,628	24.33
1896	1,116,958	28.00
1897	1,644,520	18.75

1898	1,976,702	17.62
1899	2,270,585	28.12
1900	2,383,654	32.29
1901	2,870,816	27.33
1902	2,985,892	28.00
1903	2,946,756	28.00
1904	2,137,957	28.00
1905	3,192,347	28.00
1906	3,791,459	28.00
1907	3,380,025	28.00

Production of Tin Plates in and Importation of Tin Plates into the United States, 1891 to 1908, in long tons.

Calendar Year.	Production, Long tons.	Importation, Long tons.
1891	552	327,882
1892	18,803	268,472
1893	55,182	253,155
1894	74,260	215,068
1895	113,666	219,545
1896	160,862	119,171
1897	256,598	83,851
1898	326,915	67,222
1899	397,767	58,915
1900	302,665	60,386
1901	399,291	77,395
1902	366,000	60,115
1903	480,000	47,360
1904	458,000	70,652
1905	493,500	65,740
1906	577,562	56,983
1907	514,777	57,773
1908	…	58,490

Commerce of the United States by Great Groups and Share which Manufactures and Raw Material Formed of the Total, 1820 to 1909.

Imports.

Year ending June 30—	Foodstuffs in crude condition and food animals.		Foodstuffs partly or wholly manufactured.		Crude materials for use in manufacturing.		Manufactures for further use in manufacturing.	
	Dollars.	Percent of Total	Dollars.	Percent of Total	Dollars.	Percent of Total	Dollars.	Percent of Total
1820	6,081,641	11.15	10,820,814	19.85	1,983,706	3.64	4,079,064	7.48
1830	7,382,274	11.77	9,653,971	15.39	4,214,825	6.72	5,152,486	8.22
1840	15,273,321	15.54	15,188,845	15.46	11,510,245	11.71	11,356,196	11.56
1850	18,011,659	10.38	21,465,776	12.37	11,711,266	6.75	26,163,152	15.08
1860	35,743,826	10.11	53,771,067	15.21	37,073,022	10.49	23,613,395	6.67
1870	53,981,838	12.38	96,253,561	22.08	53,118,022	12.18	54,545,306	12.51
1875	90,018,885	16.89	113,145,852	21.23	78,891,769	14.80	63,411,606	11.89
1880	.100,297,040	15.01	118,125,216	17.69	131,861,617	19.74	110,779,516	16.59
1881	.102,486,852	15.95	123,380,388	19.20	114,244,631	17.77	87,790,890	13.66
1882	.104,947,672	14.49	139,438,506	19.24	131,356,113	18.13	98,623,766	13.61
1883	93,091,358	12.87	142,127,926	19.65	133,612,450	18.48	98,755,423	13.66
1884	.103,010,830	15.43	130,778,286	19.59	119,150,641	17.84	94,698,249	14.18
1885	93,345,583	16.16	102,937,933	17.82	106,774,553	18.49	78,254,677	13.55
1886	91,588,644	14.41	112,771,436	17.75	128,434,759	20.22	91,539,244	14.40
1887	.106,362,234	15.36	111,714,382	16.14	143,361,050	20.71	120,079,754	17.34
1888	.116,087,107	16.03	111,048,075	15.34	155,057,432	21.42	121,605,094	16.80
1889	.123,130,984	16.53	122,254,266	16.41	163,548,106	21.94	115,079,918	15.44
1890	.128,480,142	16.28	133,332,031	16.89	170,637,250	21.62	116,924,080	14.81
1891	.150,639,399	17.83	147,721,884	17.48	184,175,197	21.80	136,446,309	16.15
1892	.175,558,861	21.22	139,794,773	16.89	188,317,595	22.76	112,729,303	13.63
1893	.131,663,968	15.19	153,739,181	17.75	209,277,112	24.16	135,608,418	15.65
1894	.133,309,989	20.35	155,348,824	23.72	130,086,011	19.86	82,894,732	12.65
1895	.141,377,238	19.31	107,026,180	14.63	180,939,902	24.72	96,486,622	13.18
1896	.130,002,310	16.67	118,805,703	15.24	197,646,852	25.35	101,070,937	12.96
1897	.128,379,785	16.79	129,244,951	16.90	196,159,371	25.66	88,490,406	11.57

1898	.103,984,608	16.88	86,091,010	13.97	189,322,244	30.73	79,288,417	12.88
1899	98,933,256	14.19	123,448,135	17.71	208,565,691	29.91	91,953,914	13.19
1900	97,916,293	11.52	133,027,374	15.65	276,241,152	32.50	134,222,045	15.79
1901	.110,385,208	13.43	125,540,654	15.25	248,006,751	30.13	127,576,924	15.49
1902	.120,280,302	13.31	95,350,256	10.56	303,001,868	33.55	147,656,292	16.34
1903	.119,202,674	11.62	116,620,623	11.37	330,491,084	32.22	195,750,847	19.08
1904	.132,223,895	13.34	118,222,862	11.93	320,794,431	32.37	160,233,890	16.17
1905	.146,130,903	13.08	145,355,839	13.01	389,160,658	34.82	177,827,960	15.91
1906	.134,315,448	10.95	140,358,114	11.44	414,687,999	33.81	220,298,751	17.96
1907	.149,747,693	10.44	158,656,263	11.06	477,027,174	33.25	274,096,464	19.11
1908	.145,577,427	12.19	147,008,870	12.31	363,482,258	30.43	196,248,409	16.43
1909	.163,921,598	12.49	165,028,764	12.58	453,319,751	34.55	222,580,277	16.97

Year ending June 30 —	Manufactures ready for consumption.		Miscellaneous.		Total.
	Dollars.	Percent of Total	Dollars.	Percent of Total	Dollars.
1820	30,998,900	56.86	556,709	1.02	54,520,834
1830	35,734,837	56.97	582,563	.93	62,720,956
1840	44,300,005	45.09	630,094	.64	98,258,706
1850	95,312,499	54.93	845,174	.49	173,509,526
1860	199,878,690	56.52	3,536,119	1.00	353,616,119
1870	173,034,847	39.69	5,024,834	1.16	435,958,408
1875	177,891,440	33.38	9,645,884	1.81	533,005,436
1880	196,587,405	29.43	10,303,952	1.54	667,954,746
1881	203,725,925	31.70	11,035,942	1.72	642,664,628
1882	238,716,691	32.94	11,556,826	1.59	724,639,574
1883	242,945,562	33.59	12,648,195	1.75	723,180,914
1884	207,771,072	31.12	12,288,615	1.84	667,697,693
1885	182,543,076	31.61	13,671,507	2.37	577,527,329
1886	194,791,568	30.65	16,310,485	2.57	635,436,136
1887	202,800,073	29.29	8,002,275	1.16	692,319,768
1888	211,218,652	29.17	8,940,754	1.24	723,957,114
1889	212,482,518	28.52	8,635,860	1.16	745,131,652
1890	230,685,581	29.23	9,251,325	1.17	789,310,409

1891	217,577,775	25.75	8,355,632	.99	844,916,196
1892	204,543,857	24.72	6,458,073	.78	827,402,462
1893	228,764,866	26.40	7,347,377	.85	866,400,922
1894	148,798,021	22.72	4,557,045	.70	654,994,622
1895	199,543,108	27.26	6,596,915	.90	731,969,965
1896	226,639,759	29.07	5,559,113	.71	779,724,674
1897	217,843,918	28.48	4,611,981	.60	764,730,412
1898	153,025,210	24.84	4,338,165	.70	616,049,654
1899	169,516,630	24.32	4,730,863	.68	697,148,489
1900	203,126,341	23.90	5,407,979	.64	849,941,184
1901	205,505,580	24.96	6,157,048	.74	823,172,165
1902	231,420,820	25.62	5,611,410	.62	903,320,948
1903	257,757,184	25.13	5,896,825	.58	1,025,719,237
1904	252,857,673	25.51	6,754,620	.68	991,087,371
1905	252,372,650	22.58	6,665,061	.60	1,117,513,071
1906	307,801,154	25.10	9,100,980	.74	1,226,562,446
1907	364,192,884	25.39	10,700,947	.75	1,434,421,425
1908	331,617,926	27.77	10,406,902	.87	1,194,341,792
1909	297,617,739	22.69	9,452,095	.72	1,311,920,224

Commerce of the United States by Great Groups, 1820 to 1909.

Exports (domestic).

Year ending June 30—	Foodstuffs in crude condition and food animals.		Foodstuffs partly or wholly prepared.		Crude materials for use in manufacturing.		Manufactures for further use in manufacturing.	
	Dollars.	Percent of Total	Dollars.	Percent of Total	Dollars.	Percent of Total	Dollars.	Percent of Total
1820	2,474,822	4.79	10,085,366	19.51	31,246,382	60.46	4,867,379	9.42
1830	2,724,181	4.65	9,556,992	16.32	36,482,266	62.34	4,117,606	7.04
1840	4,564,532	4.09	15,936,108	14.27	75,488,421	67.61	4,841,101	4.34
1850	7,535,764	5.59	20,017,162	14.84	83,984,707	62.26	6,060,900	4.49
1860	12,166,447	3.85	38,624,949	12.21	216,009,648	68.31	12,641,625	3.99
1870	41,852,630	11.12	50,919,666	13.53	213,439,991	56.64	13,711,708	3.66
1875	79,077,679	15.84	110,292,780	22.09	206,271,795	41.31	27,458,054	5.50
1880	266,108,950	32.30	193,352,723	23.47	238,787,934	28.98	29,044,159	3.52
1881	241,641,847	27.34	226,386,821	25.62	278,918,722	31.55	32,820,713	3.71
1882	155,008,497	21.14	178,002,738	24.28	233,294,072	31.82	37,164,800	5.07
1883	163,196,443	20.29	186,392,822	23.18	288,841,684	35.92	37,996,198	4.72
1884	130,395,872	17.99	194,703,245	26.86	239,510,224	33.04	37,800,437	5.21
1885	123,326,867	16.97	201,800,801	27.77	248,611,181	34.22	39,437,313	5.42
1886	100,799,692	15.13	162,689,021	24.43	254,409,407	38.21	34,037,715	5.11
1887	125,453,686	17.85	175,784,781	25.00	250,236,436	35.60	36,732,490	5.22
1888	86,368,408	12.63	169,872,314	24.84	271,275,629	39.67	40,176,023	5.88
1889	98,847,455	13.54	174,504,227	23.90	286,235,227	39.19	42,712,932	5.85
1890	132,073,183	15.62	224,756,580	26.59	304,566,922	36.03	46,454,992	5.50
1891	106,155,721	12.17	226,448,303	25.96	346,848,321	39.77	47,961,372	5.49
1892	262,455,846	25.84	250,438,545	24.66	315,096,548	31.02	50,284,241	4.95
1893	153,277,859	18.43	247,075,061	29.73	247,289,240	29.75	49,070,703	5.94
1894	133,196,928	15.30	249,846,142	28.77	276,068,989	31.70	67,145,189	7.72
1895	99,051,108	12.49	219,125,531	27.62	264,194,679	33.30	61,812,896	7.78
1896	128,550,669	14.90	219,413,574	25.41	251,817,571	29.17	76,219,728	8.85
1897	181,420,814	17.58	235,051,930	22.79	296,834,858	28.76	98,284,243	9.52
1898	305,108,915	25.21	284,879,827	23.54	286,311,334	23.66	101,990,563	8.43
1899	232,903,066	19.35	304,754,736	25.31	277,723,374	23.07	117,730,260	9.78
1900	227,347,193	16.59	318,126,502	23.28	325,589,000	23.75	152,890,591	11.15
1901	246,394,140	16.88	336,605,378	23.05	397,767,463	27.24	148,013,625	10.12
1902	184,786,389	13.63	328,831,350	24.27	373,595,243	27.56	131,918,311	9.73

1903	185,308,064	13.31	323,244,251	23.22	408,679,699	29.35	140,415,620	10.09
1904	135,747,224	9.46	308,835,694	21.52	461,716,328	32.17	174,574,136	12.17
1905	118,185,098	7.92	283,064,680	18.98	472,665,309	31.69	209,361,544	14.03
1906	177,216,467	10.32	347,385,462	20.22	500,536,700	29.13	226,210,513	13.17
1907	167,348,227	9.03	345,706,609	18.65	593,145,135	32.00	259,414,784	13.99
1908	189,051,824	10.30	331,961,663	18.10	556,681,462	30.33	261,105,883	14.23
1909	135,663,625	8.28	302,457,444	18.46	520,768,631	31.78	229,937,155	14.04

Year ending June 30 —	Manufactures ready for consumption.		Miscellaneous.		Total.
	Dollars.	Percent of Total	Dollars.	Percent of Total	Dollars.
1820	2,925,165	5.66	84,526	0.16	51,683,640
1830	5,461,589	9.34	182,244	.31	58,524,878
1840	10,584,079	9.47	246,320	.22	111,660,561
1850	17,162,206	12.72	139,494	.10	134,900,233
1860	35,811,383	11.33	988,371	.31	316,242,423
1870	56,329,137	14.96	363,341	.09	376,616,473
1875	74,503,493	14.92	1,680,299	.34	499,284,100
1880	92,774,139	11.26	3,878,448	.47	823,946,353
1881	102,458,449	11.59	1,699,395	.19	883,925,947
1882	124,835,385	17.02	4,934,240	.67	733,239,732
1883	122,448,549	15.23	5,347,936	.66	804,223,632
1884	118,172,882	16.30	4,382,192	.60	724,964,852
1885	110,818,865	15.25	2,687,919	.37	726,682,946
1886	111,627,312	16.76	2,401,382	.36	665,964,529
1887	112,417,839	15.99	2,397,691	.34	703,022,923
1888	113,892,689	16.65	2,277,041	.33	683,862,104
1889	123,183,883	16.87	4,798,885	.65	730,282,609
1890	132,527,050	15.68	4,915,101	.58	845,293,828
1891	140,349,741	16.09	4,506,825	.52	872,270,283
1892	132,792,441	13.07	4,664,390	.46	1,015,732,011
1893	129,938,284	15.63	4,379,638	.52	831,030,785
1894	135,659,274	15.61	7,288,415	.84	869,204,937
1895	143,244,969	18.06	5,963,407	.75	793,392,590

1896	181,789,157	21.04	5,409,788	.63	863,200,487
1897	212,959,122	20.63	7,456,636	.72	1,032,007,603
1898	222,537,358	18.38	9,463,916	.78	1,210,291,913
1899	262,656,583	21.81	8,163,203	.68	1,203,931,222
1900	331,955,684	24.15	14,854,601	1.08	1,370,763,571
1901	317,764,367	21.76	13,917,833	.95	1,460,462,806
1902	321,946,540	23.75	14,404,028	1.06	1,355,481,861
1903	327,489,757	23.52	7,100,911	.51	1,392,231,302
1904	348,745,843	24.30	5,559,792	.38	1,435,179,017
1905	402,064,030	26.95	6,403,980	.43	1,491,744,641
1906	459,812,656	26.76	6,791,584	.40	1,717,953,382
1907	480,708,667	25.93	7,394,612	.40	1,853,718,034
1908	489,469,958	26.68	6,515,567	.36	1,834,786,357
1909	441,820,754	26.97	7,707,984	.47	1,638,355,593

Population of the United States 10 Years of Age and Upward, Engaged in Manufacturing and Other Gainful Occupations, Census Year 1900, by Sex.

[From reports of the Bureau of the Census, Department of Commerce and Labor.]

OCCUPATION.	1900.		
	Male.	Female.	Total.
AGRICULTURAL PURSUITS	9,404,429	977,336	10,381,765
PROFESSIONAL SERVICE	827,941	430,597	1,258,538
DOMESTIC AND PERSONAL SERVICE	3,485,208	2,095,449	5,580,657
TRADE AND TRANSPORTATION	4,263,617	503,347	4,766,964
MANUFACTURING AND MECHANICAL PURSUITS	5,772,641	1,312,668	7,085,309
Building trades.			
Carpenters and joiners	599,707	545	600,252
Masons (brick and stone)	160,638	167	160,805
Painters, glaziers, and varnishers	275,782	1,759	277,541
Paper hangers	21,749	241	21,990
Plasterers	35,649	45	35,694
Plumbers and gas and steam fitters	97,659	126	97,785
Roofers and slaters	9,065	2	9,067
Mechanics (not otherwise specified)	9,351	27	9,378
Chemicals and allied products.			
Oil well and oil works employes	24,573	53	24,626
Other chemical workers	12,035	2,688	14,723
Clay, glass, and stone products.			
Brick and tile makers, etc.	49,455	478	49,933
Glassworkers	47,377	2,621	49,998
Marble and stone cutters	54,317	143	54,460
Potters	13,200	2,940	16,140
Fishing and mining.			
Fishermen and oystermen	68,478	462	68,940
Miners and quarrymen	562,417	989	563,406

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